

What is claimed is:

1. A magnetic recording disk comprising first and second ferromagnetic films antiferromagnetically coupled to one another and an antiferromagnetically coupling film located between the first and second ferromagnetic films, the antiferromagnetically coupling film being formed of an alloy comprising Ru and Fe.

2. The disk of claim 1 wherein each of the first and second ferromagnetic films is formed of an alloy comprising Co.

3. The disk according to claim 1 wherein the alloy comprising Ru and Fe is an alloy consisting essentially of Ru and Fe and having a composition $\text{Ru}_{100-x}\text{Fe}_x$ wherein x is between approximately 10 and approximately 60 atomic percent.

4. A magnetic recording disk comprising:

a substrate;

a magnetic recording layer on the substrate and comprising a first Co-alloy ferromagnetic film having a magnetic moment per unit area, an antiferromagnetically coupling film on the first ferromagnetic film, and a second Co-alloy ferromagnetic film having a magnetic moment per unit area different from the moment per unit area of the first ferromagnetic film and being formed on the antiferromagnetically coupling film, the second ferromagnetic film being exchange coupled antiferromagnetically to the first ferromagnetic film across the antiferromagnetically coupling film, the antiferromagnetically coupling film being formed of a material consisting essentially of Ru and Fe and having a composition $\text{Ru}_{100-x}\text{Fe}_x$ wherein x is between approximately 10 and approximately 60 atomic percent.

5. The disk of claim 4 further comprising a nonmagnetic spacer film that does not provide antiferromagnetic coupling on the second ferromagnetic film and a third ferromagnetic film on said nonmagnetic spacer film.